## A28—Lancaster Farming, Saturday, February 2, 1980

## How two dairymen cut costs, save nitrogen

SHOEMAKERSVILLE -There is little that dairymen can do to control the price of the purchased feed and concentrates. At best, they can shop for the best prices and grow higher quality hay to minimize the need to buy soybean meal.

Where the dairyman has a real chance to reduce those feed costs is in the crops grown on his own farm. The bottom line is what it costs to produce a ton of hay or corn sılage.

Factors affecting this bottom line are labor and machinery costs, land and interest, plus seed and chemicals. On the other hand the yields play a vital role since yields dictate the cost per ton of feed produced. Higher yields spread out the cost of production.

Two dairymen who have learned how to reduce costs and increase yields are Bill Adams of Shoemakersville and Ray Walton of Linwood, NY.

The Walton's farm consists of 500 acres - 400 of which are tillable. The crops grown are 200 acres of alfalfa and 200 acres of corn, 50 of the 200 acres are made into silage.

There are two major factors which are helping the Waltons keep feed costs down. One is that they have been able to eliminate the cost of side dressing their corn with fertilizer and to grow high protein alfalfa.

"One of the biggest problems with trying to side dress corn is you either have to forego cutting the alfalfa at the right time and lose a lot of the protein content or you side dress the corn after the first cutting and that ends up pruning the corn roots

"This sets the corn back a good 2 weeks The practice also means another trip in the field and further soil compaction" explained Ray Ray prefers to cut his

alfalfa in the bud stage when protein content is at its highest He cuts it, windrows it and wilts it down to between 40 percent and 45 percent moisture before its stored in his Harvestore.

This past year's tests showed Walton's alfalfa haylage was 23 percent alfalfa fields at the right time has been to eliminate the sidedressing of corn.

"When we used to side dress our corn one crop or the other would suffer. Usually we let the corn suffer by getting into the fields too late but that's because hay is a lot more important then the corn. Only thing is, we had higher corn production costs then we wanted," said Ray. Ray figures it costs \$8 to

\$8.50 per acre to side dress corn. That cost includes labor, fuel, equipment maintenance and depreciation. It does not include the cost of the fertilizer itself.

He found that to do a good job of side dressing he could do three to four acres per hour.

He experienced a two week corn growth setback because the corn was 12 to 24 inches high and thus the root pruning problem. His alfalfa is cut and brought in starting May 20th and ends June 5th. The haylage yields run 6 to 6.5 tons per acres.

"I want to keep corn silage and grain corn yields up as high as possible too. I realize that the whole idea of sidedressing corn is to help control the nitrogen loss due leaching to and denitrification. So I tried N-Serve and it did the job" explained Ray.

N-Serve is a nitrogen stabilizer put out by Dow Chemical Company. Basically it slows down the action of the ammonium nitorgen form converting into nitrites and nitrates. Nitrites have a tendency to denitrify (escape into the atmosphere) and nitrates can leach into the ground In both cases this can reduce the amount of nitrogen fertilizer which is available to the corn plant Cornell University experts find 75 percent or more of the total nitrogen applied in the fall is lost They figure that an average of 35 percent of spring applied nitrogen is lost

The loss can vary from zero to 95 percent depending on weather and soil conditions.

"The nitrogen stabilizer

The key to getting in the dressing plus I haveeliminated soil compaction and root pruning" explained Ray.

Ray put the nitrogen stabilizer with part of his corn this year and got a nine bushel yield increase per acre.

Basically he chisel plowed in spring, applied a tank mix of fertilizer, N-Serve and herbicides and promptly incorporated it with a drag harrow.

This was followed with planting the corn in 32 inch rows. Ray used Sutan and Bladex as herbicides and Furadan as an insecticide. 200 pounds of 7-21-7 fertilizer starter was applied per acre at planting time. 400 pounds of 20-6-12 plus 40 pounds of urea was applied per acre with the tank mix.

By increasing his protein from an average of between 16 and 17 percent up to 20 or 23 percent he has cut his protein bill in half. Before it ran hum \$26,000 per year and now it is \$13,000 per year. This coming year Ray will treat all 200 acres with the nitrogen stabilizer. His added yields he figures will run 8 to 10 bushels more. At \$2 per bushel Ray will have \$3000 more high moisture corn and silage for his cows.

Currently his rolling herd average is 14,500 pounds of milk and 3.6 percent butterfat. His milk herd is 116 Holsteins, housed in a free stall barn.

The Ray Walton operation cut corn growing costs, and therefore feeding costs for the milkers, by \$13,000 last year because of higher quality and better yields. Waltons have \$16,000 more would cost me about \$10 per profit from their dairy acre. Also I need that time to operation because of cutting make my hay" said Adams.

feed costs plus increasing corn yields and alfalfa protein yields. Bill Adams agrees that

side dressing can't be justified today. "I figure that The upshot is that the side dressing corn today

Adams enjoys high corn

varying from a low of 150 bushels in some fields up to 200 bushels per acre in his top producing fields

Adams practices a con-

only used on 100 acres .....

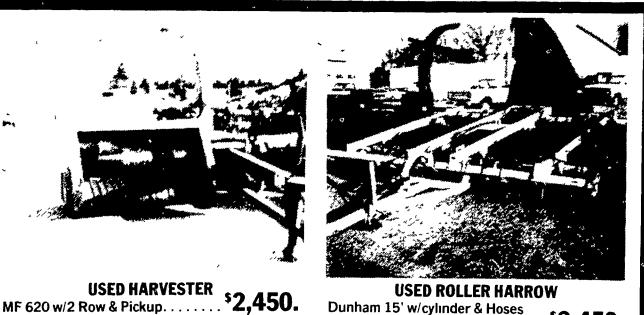
ventional tillage - no-till rotation program to minimize weed and insect problems. He moldboard plows two-thirds of his 300 acres of corn and no-tills the rest.

Of the 300 acres of corn, 40

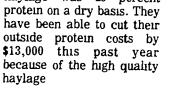
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<sup>3</sup>3,450

\$1,275 00



yields with this year's crop



The average dairyman in western New York spends 25 percent of his milk check for outside feed costs including protein supplements and minerals The Waltons spent a modest nine percent of their milk check for outside feed costs

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